ENVIRONMENTAL CHEMISTS

Date of Report: 12/17/99 Date Received: 12/09/99

Project: Metro Self Monitor, PO# M63158

Date Samples Extracted: 12/13/99 Date Extracts Analyzed: 12/15/99

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR CHROMIUM, COPPER, NICKEL, ZINC USING METHOD 6010

Samples Processed Using Method 3005A

Results Reported as mg/L (ppm)

Sample ID	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M63158	0.37	0.41	0.46	0.05
Method Blank	< 0.05	< 0.05	< 0.05	< 0.05

ENVIRONMENTAL CHEMISTS

Date of Report: 12/17/99 Date Received: 12/09/99

Project: Metro Self Monitor, PO# M63158

QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 912036-01 (Duplicate)

	불가 얼마 하나를 된 말을 하다.				Relative	
		Reporting	Sample	Duplicate	Percent	Acceptance
1	Analyte	Units	Result	Result	Difference	Criteria
À,	Chromium	mg/L (ppm)	0.37	0.35	6	0-20
	Copper	mg/L (ppm)	0.41	0.39	5	0-20
	Nickel	mg/L (ppm)	0.46	0.43	7	0-20
	Zinc	mg/L (ppm)	0.05	0.05	0	0-20

Laboratory Code: 912036-01 (Matrix Spike)

	Reporting	Spike	Sample	% Recov	ery % Recov	ery Acceptance	
Analyte	Units	Level	Result	MS	MSD	Criteria	RPD
Chromium	mg/L (ppm)	5	0.37	100	103	80-120	3
Copper	mg/L (ppm)	5	0.41	93	93	80-120	0
Nickel	mg/L (ppm)	10	0.46	102	104	80-120	2
Zinc	mg/L (ppm)	5	0.05	110	114	80-120	4

Laboratory Code: Laboratory Control Sample

		Reporting	Spike	% Recove	ery % Recove	ry Acceptanc	e	
	Analyte	Units	Level	LCS	LCSD	Criteria	R	PD
į	Chromium	mg/L (ppm)	5	98	102	80-120		4
	Copper	mg/L (ppm)	5	96	102	80-120		6
	Nickel	mg/L (ppm)	10	100	104	80-120		4
	Zinc	mg/L (ppm)	5	102	108	80-120		6

912036

FRIEDMAN & BRUYA, INC. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282

DH A11 12-9-49

SAMPLE CHAIN OF CUSTODY

Send Report To: A A						2			
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	City, State, Zip Sea	He up 98	134	0 0 7	C) (/2, C	5. (6.6	00		
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FORMS/COC

10/26/99

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S.

3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

December 17, 1999

DUPLICATE COPY

INVOICE #99ACU1217-1

Accounts Payable Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

RE: Project Metro Self Monitor, PO# M63158: Results of testing requested by Gerry Thompson for material submitted on December 9, 1999.

1 water sample analyzed for
Chromium, Copper, Nickel, and Zinc
using Method 6010 @ \$80 per sample

\$ 80.00

PLEASE NOTE: As a convenience for our valued clients, we can accept credit cards (VISA, MasterCard or government purchasing cards) for payment on our invoices. Please contact our office if you would like to take advantage of this service.

FEDERAL TAX ID #(b) (6)

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

December 17, 1999

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on December 9, 1999 from your Metro Self Monitor, PO# M63158 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Dianne C. Heut

Dianne C. Hurt Project Manager

Enclosures ACU1217R.DOC